

RYBAKOV, I.Ya., inzhener-konstruktor.

Calculating the bucket of peat excavators. Torf.prom. 31 no.7:24-25
154. (MLRA 7:11)

1. Giprotopprom.
(Peat machinery)

TURUSOVA, M.D., inzh.; GRIGOR'YEVA, G.M.; NAYDENOV, I.V.; KRYUCHKOV, V.I.;
RYBAKOV, K.M.

Expediency of substituting nylon for cotton in the manufacture of
jacquard loom cords. Tekst.prom. 23 no.5:67 My '63. (MIRA 16:5)

1. Nauchno-issledovatel'skaya laboratoriya Bol'shogo Kokhomskogo
khlopchatobumazhnogo kombinata (for Turusova). 2. Master risoval'nogo
otdela Bol'shogo Kokhomskogo khlopchatobumazhnogo kombinata (for
Grigor'yeva). 3. Master prigotovitel'nogo otdela Bol'shogo
Kokhomskogo khlopchatobumazhnogo kombinata (for Naydenov).
4. Nachal'nik tkatskogo proizvodstva Bol'skogo Kokhomskogo
khlopchatobumazhnogo kombinata (for Kryuchkov). 5. Pomoshchnik
mastera tkatskogo tsekha Bol'shogo Kokhomskogo khlopchatobumazhnogo
kombinata (for Rybakov).

(Looms) (Nylon)

CHERTKOV, Ya.V.; RYBAKOV, K.N.; ZARELOV, V.N.; FOMISHENKO, B.A.

Efficiency of fuel storage filters. Transp. i khran. nefi
no. 3:22-25 '63. (MIRA 17:7)

1. NII-25

VIPPER, A.B.; RYBAKOV, K.V.

Efficient checking of the performance of fine oil-cleaning filters.
Obm.tekh.opyt.na avt.transp. no.4:4-8 '60. (MIRA 13:12)
(Motor vehicles—Engines—Oil filters)

RYBAKOV, K.V.; GUREYEV, A.A.; INOZEMTSEVA, M.N.

Contamination of automobile gasolines. Transp. i khran. nefti no.7:
25-28 '63. (MIRA 17:3)

USTINOVA, Ye.T., starshiy nauchnyy sotrudnik; NEBAROV, V.N.; RYBAKOV, K.V.,
starshiy nauchnyy sotrudnik

Nonwoven glued filter materials. Tekst.prom. no. 2:65-69 F '63.
(MIRA 16:4)

1. Laboratoriya netkanykh materialov Tsentral'nogo nauchno-issledovatel'skogo instituta khlopchatobumazhnoy promyshlennosti (TSNIKhBI) (for Ustinova). 2. Khimiko-tehnicheskaya laboratoriya Tsentral'nogo nauchno-issledovatel'skogo instituta khlopchatobumazhnoy promyshlennosti (TSNIKhBI) (for Nebarov).
(Nonwoven fabrics) (Filters and filtration)

ZRELOV, V.N.; MARINCHENKO, N.I.; SHCHAGIN, V.M.; RYBAKOV, K.V.

Chemical composition of trace contaminants in jet fuels made from
sulfur-bearing crude oils. Khim.i tekhn.topl.i masel 8 no.11:
57-61 N '63. (MIRA 16:12)

ZRELOV, V.N.; SHCHAGIN, V.M.; MARINCHENKO, N.I.; RYBAKOV, K.V.

Composition of microcontaminations in T-1 fuel from Azerbaijan petroleums. Neftteper. i neftekhim. n. 10:8-11 '63. (MIRA 17:2)

USTINOVA, Ye.T.; RYBAKOV, K.V.

Effect of the fibrous layer composition and single technological conditions on the performance of fiber-bonded unwoven filter fabrics. Nauch.-issl. trudy TSNIKHBI za 1962 g.:294-303 '64.
(MIRA 18:8)

L 17545-65 EWT(m)/EPF(c)/T Pr-4 AEDC(b)/AFETR/AFTC(p) WE
ACCESSION NR: AP5000083 S/0318/64/000/005/0020/0022

AUTHOR: Zrellov, V. N., Ry*bakov, K. V.

TITLE: Improvement in the filtration of jet fuels stored at airfields

SOURCE: Neftepererabotka i neftekhimiya, no. 5, 1964, 20-22

TOPIC TAGS: jet fuel, aviation gasoline, gasoline filtration, fuel storage

ABSTRACT: A double filtering system was adopted to improve the purity of fuel delivered by railroad tank cars and stored at airfields for use by jet aircraft. Following the rough filters of the pumping station, a fine TF-1 filter was set up with a TFCh-35-39S filter cartridge consisting of three layers of special cloth and one layer of silk G. Before filling the fuel tanks of the planes, a system of double fine filtration was used, first through a TFCh-150-200C filter cartridge mounted inside the distribution reservoir, then through a TF-2M filter on the fuel trunk with the same type of filter cartridge. This filtering system made it possible to reduce the amount of microcontaminants in the fuel discharged from railroad cars by 50%. As a result, purer fuel was stored which did not contain 40% microimpurities, and the content of microcontaminants in the fuel delivered to the jet plane was only 0.5 mg/kg. Orig. art. has: 1 figure and 2 tables.

Card 1/2

L 17545-65

ACCESSION NR: AP5000083

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: FF

NO REF SOV: 003

OTHER: 003

Card 2/2

I 22698-66 EMT(m)/T WE
 ACC NR: AP6007937 SOURCE CODE: UR/6218/66/000/0017-
 44
 B
 AUTHOR: Zrelov, V. N.; Rybakov, K. V.
 ORG: none
 TITLE: Changes in the contamination of jet fuels during storage after filtration
 SOURCE: Neftepererabotka i neftekhimiya, no. 1, 1966, 9-11
 TOPIC TAGS: jet fuel, fuel storability, fuel contamination, fuel filtration
 ABSTRACT: A study has been made of the effect of preliminary filtration on jet fuel contamination in storage. T-1 jet fuel conforming to GOST 10227-62 specifications was used. Fuel samples were filtered at the same rate through one of three filter media, viz., twill cloth, swanboy cloth, or a nonwoven filter medium. After filtering they were stored for 16 months in small containers with or without air access. The number and particle-size distribution of minute contaminants present in the fuel was determined periodically through the use of a 180X microscope. The experimental results are given in tabular and graphic form in the source. It was found that filtration of the fuels through each of the three filter media caused contaminant peptization to increase the number of colloidal and finely divided storage. Then, rapid This colloidal system remained stable for only one month of storage. Then, rapid coagulation of the colloidal system began, with the formation of particles typical of

UDC: 621.45.002.637.004.4:66.067.12

L 16670-66 EWT(m)/T WE

ACC NR: AP6005511

SOURCE CODE: UR/0256/66/000/001/0083/0084

AUTHOR: Zrelov, V. N. (Engineer, Lieutenant colonel, Candidate of technical sciences); Rybakov, K. V. (Engineer, Lieutenant colonel)

ORG: none

TITLE: Prevention of jet fuel contamination

SOURCE: Vestnik protivovozdushnoy oborony, no. 1, 1966, 83-84

TOPIC TAGS: jet fuel, fuel contamination, fuel storage, aircraft fuel system

ABSTRACT: An authority on jet fuels has reviewed the problem of jet fuel contamination. It is noted that the fuel systems of modern aircraft, which have decreased clearances between mating parts, demand that fuels be free of contaminants having a particle size above 5 μ . A study of TS-1¹¹ and T-1¹¹ jet fuels showed that fuel contamination is much greater in the southern climatic zone of the Soviet Union than in the moderate climatic zone; compositions of contaminants in the different climatic zones are mentioned. Sources of contamination, and purification measures at storage facilities and on aircraft (improved filtration, storage, and fueling conditions) are discussed and illustrated in appropriate flow sheets. Also mentioned are measures to minimize carbon formation in aircraft fuel systems (prevention of repeated heating). It is stated in conclusion that the set of preventive measures outlined in the article will make it pos-

Card 1/2

UDC: 621-732

L 16670-66

ACC NR: AP6005514

sible to decrease substantially the contamination of aviation fuels in airfield storage facilities, and to improve filtration during aircraft fueling and in aircraft systems proper, thereby ensuring reliable operation of the aircraft. Orig. art. has: 2 figures. [ATD PRESS: 4192-F]

SUB CODE: 21 / SUBM DATE: none

Card 2/2

L 43933-66 EWT(un)/Y WE

ACC NR: AP6029039

(A)

SOURCE CODE: UR/0413/66/000/014/0055/0055

INVENTOR: Chertkov, Ya. B.; Zrelov, V. N.; Shchagin, V. M.; Fel'dshteyn, M. S.;
Rybakov, K. V.

ORG: none

TITLE: Method of removing minute contaminants from [jet] fuels. Class 23,
No. 183859

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 55

TOPIC TAGS: jet fuel, fuel additive, fuel contamination, ~~coagulant-additive~~

coagulation
ABSTRACT: An Author Certificate has been issued for a method of removing minute contaminants from [jet] fuels as per Author Certificate No. 173363 but involving sulfenamide derivatives [unspecified] of 2-benzothiazole as the coagulating additive. [Author Certificate No. 173363 concerned a method of removing minute contaminants by filtration, featuring the addition to the fuel of octadecylamidoxylbutyric acid [sic] as a coagulating additive to increase the speed and degree of purification]. [SM]

SUB CODE: 21/ SUBM DATE: 02Nov63/ ATD PRESS: 506/

Card 1/1 *copy*

UDC: 665.541

GUREYEV, A.A., kand. tekhn. nauk; RYBAKOV, K.V.; ARONOV, D.M.

Gasoline filtration in the fuel system of motor vehicles.
Avt. prom. 30 no.3:11-13 Mr '64. (MIRA 17:6)

ROZHKOV, I.V.; RYBAKOV, K.V.

Filtration of a paraoxydiphenylamine solution in aromatic
solvents. Nefteper. i neftekhim. no. 4:21-24 '64.
(MIRA 17:5)

ZRELOV, V.N.; RYBAKOV, K.V.

Improving the filtration of jet fuels in an aerodrome fuel
warehouse. Neftteper. 1 neftekhim. no.5:20-22 '64.
(MIRA 17:8)

CHERTKOV, Ya.B.; RYBAKOV, K.V.; ZRELOV, V.N.; MARINCHENKO, N.I.;
INOZEMTSEVA, M.N.

Formation of trace impurities in middle-distillate fuels.
Zhur. prikl. khim. 36 no.8:1825-1833 Ag '63. (MIRA 16:11)

MOSIKHIN, Ye.P., inzh.; RYBAKOV, K.V., inzh.

Some laws governing oil contamination in engines. Mekh. i elek.
sots. sel'khoz. 21 no.4:30-32 '63. (MIRA 16:9)
(Gas and oil engines)

CHERTKOV, Ya.B.; ZRELOV, V.N.; RYBAKOV, K.V.; SHAGIN, V.M.; FOMISHENKO, B.A.

Characteristics of microcontaminants in middle-distillate
fuels. Khim. i tekhn. topl. i masel 7 no.10:56-59 0'62
(MIRA 17:7)

40625

S/065/62/000/010/003/004
E075/E136

11.0132
AUTHORS:

Chertkov, Ya.B., Zrelov, V.N., Rybakov, K.V.,
Shagin, V.M., and Fomishenko, B.A.

TITLE:

Characteristics of micro-impurities in middle
distillate fuels

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.10, 1962,
56-59

TEXT: The authors investigated the nature of micro-impurities
in fuel TC-1 (TS-1) used in aviation gas-turbine engines. The
impurities in the fuels form through the interaction of metal
containing compounds with high molecular weight, resinous compounds
and moisture. The metal-containing compounds originate from
corrosion of tanks and moving parts of various mechanisms, as well
as leaching of certain fillers from plastic materials. The
relatively coarse particles of the impurities form mainly by the
agglomeration of finely dispersed material. The formation of
particles having the size of 0.1-1 micron is speeded up by
increasing temperature, agitation and excessive pressures.
Card 1/2

Characteristics of micro-impurities.. S/065/62/000/010/003/004
E075/E136

The inorganic part of the impurities in fuel TS-1 contained 13.7% of Fe after filtration through a filter with 7 micron pores. This indicated that Fe can be present in the fuels in a finely divided state. The second most abundant element in the impurities is Si. The organic part of the contaminants contained S and N, the latter being present only in the organic part, whereas some of the sulphur was present also in the inorganic part of the impurities. To avoid the contamination of the fuels it is advisable to carry out systematic removal of moisture, prevent the formation of high molecular weight resins and exclude metal containing compounds.
There are 4 tables.

Card 2/2

MUNIROV, Z., neshtatnyy korrespondent (Samarkand); RYBAKOV, L., neshtatnyy korrespondent (Mariyskaya SSR)

Assignments of the yearly plan will be completed ahead of time.
Mest. prom. i khud. promys. 3 no.9:3-5 S '62. (MIRA 16:12)

RYBAKOV, L. 107-9-38/53

AUTHOR: Rybakov, L. and Sharapov, L.

TITLE: A Transistor Tester (Pribor dlya proverki poluprovodnikovyykh triodov)

PERIODICAL: Radio, 1957, # 9, p 49-50 (USSR)

ABSTRACT: This article describes a simple instrument for measuring the characteristics of transistors. A galvanometer having a sensitivity of 100-200 micro-amperes and a set of shunts can be utilized as indicator. The circuit-diagram is given by figure 1 and described in the article. For determining the LF amplifying characteristics of a transistor, the static operating conditions are to be established by applying the battery voltage directly to the collector by means of a commutator. At any other position of the same, one of the oscillating circuits is switched into the collector circuit according to the auto-transformer scheme for eliminating the influence of the capacitance of the transistor on the frequencies emitted by the oscillator. At the same time, a positive feed back element is introduced through a capacitor. The transistor is operating in oscillator conditions, the HF voltage of which can be measured by an ordinary microammeter containing a "ПП-1" type germanium diode. The article then deals with the operation of the measuring in-

Card 1/2

. A Transistor Tester

107-9-38/53

/ instrument for determining the characteristics of various transistors which are used in amateur radios. The instrument described in this article has the form of a small accessory unit of an avometer. Its constructional details are given.
The article contains 5 figures.

AVAILABLE: Library of Congress

Card 2/2

FARKHADOV, A., kand.tekhn.nauk; NEGREYEV, V., doktor tekhn.nauk;
NURIYEV, M., starshiy inzh.; ZAMANOV, B., starshiy inzh.;
KYAZIMOV, A., inzh.; RYBAKOV, L.

Cathodic protection of seagoing ships from corrosion. Mor. flot 18
no.2:13-14 P '58. (MIRA 11:2)

1.Institut "Gipromorneft'" (for Kyazimov). 2.Glavnyy inzhener
"Kaspneftflot" (for Rybakov).
(Corrosion and anticorrosives)

RYBAKOV, L. (Leningradskaya obl., st. Berngardovka)

Transistorized signal generator for radio amateurs. Radio
no.10:53 0 '61. (MIRA 14:10)
(Oscillators, Transistor)

RYBAKOV, L.; SHARAPOV, L.

Apparatus for testing transistors. Radio no.9:49-50 S '57.
(MIRA 10:10)
(Transistors--Testing)

NEGREYEV, V., doktor tekhn.nauk; NURIYEV, M.; TRIFEL', M.; RYBAKOV, L.

Electrochemical protection of ships from corrosion. Mor.flot 20
no.10:23-26 0'60. (MIRA 13:10)

1. Starshiy inzhener "Gipromornefti" (for Nuriyev). 2. Rukovoditel'
sektora "Gipromornefti" (for Trifel'). 3. Glavnyy inzhener
"Kaspnefteflota" (for Rybakov).
(Cathodic protection)

ACC NR: AP7002978 SOURCE CODE: UR/0413/66/000/024/0077/0077 6

INVENTOR: Veksler, B. Ye; Katkov, G. F.; Malinskiy, S. A.; Minkin, M. M.; Remennikov, V. S.; Rybakov, L. A.; Sokolinskiy, Ye. A.; Fedorov, V. N.; Shmulovich, I. Sh.; Gertsov, S. M.; Pishchulin, V. V.

ORG: None

TITLE: A seismic prospecting station. Class 42, No. 189598

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 24, 1966, 77

TOPIC TAGS: seismic prospecting, frequency divider, quartz crystal, seismologic station

ABSTRACT: This Author's Certificate introduces a seismic prospecting station containing an amplification-conversion channel, registration unit and power supply. The unit is designed for improved reliability and operational convenience. A quartz oscillator with a frequency divider system is used as a precision-frequency power supply and synchronizing unit. The oscillator is connected through amplifiers to the actuating units of the station.

SUB CODE: 08 / SUBM DATE: 04Jun65

Card 1/1 UDC: 550.340.19

COURCE CODE: UR/0415/66/000/015/0004/0004 1/2

AUTHORS: Vasiliev, Ye. I.; Leonov, V. S.; Ayman, Yu. A.; Sokolinskiy, Ye. A.;
 Ponomarev, A. I.; Podorov, V. N.; Ivanov, A. M.; Malinskiy, S. A.;
 Vysotskiy, V. V.; Kuznetsov, V. M.; Vysotskiy, Yu. A.; Zamskiy, V. M.; Bystrov, V. V.;
 Ponomarev, V. M.; Sazonov, I. V.; Yevzerov, D. A.; Germanov, Yu. G.; Maksimov, N. P.;
 Ponomarev, M. A.; Pichukhin, V. V.

CLASS: none

NOTE: Seismic station. Class 42, No. 184466 [announced by "Neftepribor" Factory
 of the Instrument Manufacture Administration of Mosgorsovnarkhoz (Zavod "Neftepribor"
 Upravleniya priborostroyeniya Mosgorsovnarkhoza)]

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 94

TOPIC TAGS: seismologic station, seismologic instrument

ABSTRACT: This Author Certificate presents a seismic station containing a seismic
 signal detector, a recording amplifier unit, an oscillograph, a magnetic drum
 recorder, a channel reproduction unit, a control unit, a reproduction amplifier, a
 multichannel borehole probe, a drum with photographic paper, a retransmitting unit,
 and a power supply. To increase the reliability when transferring from operation with
 the method of reflected waves to the method of refracted waves, a filter unit is
 connected between the first and second stages of the recording amplifier unit. A

Cord 1/2

UDC: 550.340.19

1 10062-67

ACC NO: AP6029933

modulator-demodulator unit and a reel type magnetic recorder are connected in series to the output of the recording amplifier unit. For operation with the method of refracted waves, the filter unit has frequency cutoffs of 7--30 hz, and for operation at sea--frequency cutoffs of 20--50 hz. To increase the reliability of the recorded data with operation by the method of regulated directional reception, a switching unit for the channels to be summed, a static correction unit, and a summing unit are connected in series between the magnetic drum recorder and the reproduction amplifier. To increase the reliability when transferring from operation with the method of reflected waves to seismic logging, a frequency selection unit is connected between the multichannel borehole probe and the magnetic drum recorder. To improve the quality of the recorded material, an electron beam unit for introducing static and dynamic corrections is connected between the reproduction amplifier and the drum with photographic paper.

SUB CODE: 08/ SUBM DATE: 05May65

Card 2/2

S/169/62/000/003/012/098
D228/D301

AUTHOR: Rybakov, L. A.

TITLE: Application of aerogeophysical methods in the search for carbonatite deposits

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 3, 1962, 19, abstract 3A158 (Byul. nauchno-tekhn. inform. M-vo geol. i okhrany nedr SSSR, no. 4 (32), 1961, 3-8)

TEXT: Carbonatite-type deposits are considered to be extremely promising with respect to their content of niobium and rare-earths. A short description of the geologic structure of carbonatite deposits is given. The physical properties of carbonatites and their host-rocks are specified. The rocks of intrusive complexes, with which carbonatites are associated, differ strongly in their physical properties from the host-rocks and can be exposed well by geophysical methods. Mineralized varieties of carbonatites, containing hatchettolite and pyrochlore, mostly possess a heightened radioactivity and also elevated values for their magnetic susceptibility

Card 1/2

Application of aerogeophysical ...

S/169/62/000/003/012/098
D228/D301

and density. A number of the prospecting characteristics of carbonatite deposits that are promising for rare elements are distinguished. The conclusion is drawn about the effectiveness of the method of joint gamma-ray and magnetic surveying in the search for rare-metal carbonatite deposits. [Abstracter's note: Complete translation.]

Card 2/2

YEFREMOVICH, V.A. (Moskva); LEVIN, V.I. (Moskva); MARKHASEV, G. (Klyaz'ma);
ONOFRAH, Ye. [Onofras, E.] (Yassy, Rumyniya); RYBAKOV, L.M. (Yaroslavl');
ZAGUSKIN, V.L. (Yaroslavl')

Brief notes. Mat. pros. no. 6:255-265 '61. (MIRA 15:3)
(Mathematics--Problems, exercises, etc.)

ISAKOV, A.A. (Kemerovskaya oblast'); ZHURGARAYEV, Amangel'dy (Dzhambul'skaya obl., KazSSR); VLADIMIROV, A. (Asbest); FRIMAN, L.I. (Yaroslavl'); KILIMNIK, Ya.Ye. (Vinnitsa); TEREKHOV, I.A. (Skopin); AKDAULETOV, N.A. (pos.Mertuk. KazSSR); ZAKHARKIN, V.Ye. (pos.Rudtsev, Tul'skaya oblast'); SHESTOPAL, G.A. (Moskva); KOTII, O.A. (Yaroslavl'); GAUKHMAN, V.A. (Moskva); LOPSHITS, A.M. (Yaroslavl'); SERGUSHOV, S.A. (Yaroslavl'); GOTMAN, E.G. (Pechora); VETROV, K.V. (Putintsevo, Vostochno-Kazakhstanskoy obl.); MIKHELEVICH, Sh.Kh. (Daugavpils); SKOPETS, Z.A. (Yaroslavl'); RYBAKOV, L.M. (Yaroslavl'); CHEGODAYEV, A.I. (Gavrilov-Yam)

Problems. Mat.v shkole no.6:85-92 N-D '62. (MIRA 16:1)
(Mathematics--Problems, Exercises, etc.)

ALYAYEV, A.V. (Penzenskaya oblast'); ALEKSEYEV, V. (Yaroslavl');
DUBOVIK, V.A. (Vinnitskaya oblast'); GUBA, S.G. (Vologodskaya
oblast'); GOTMAN, E.G. (Pechora); RYBAKOV, L.M. (Yaroslavl')

Problems for school mathematical circles. Mat. v shkole no.3:
88-89 My-Je '63. (MIRA 16:7)

(Mathematics--Problems, exercises, etc.)

RYBAKOV, L.M.

Conditions of induction on abstract sets. Uch. zap. IAr.
gos. ped. inst. no.34:175-179 '60. (MIRA 15:9)
(Topology)

RYBAKOV, L. M.

Ob odnom klasse kommutativnykh polygrupp. Matem. SB., 5 (47), (1939), 521-536.

SO: Mathematics in the USSR, 1917-1947

edited by Kurosh, A. G.,

Markushevich, A. I.,

Rashevskiy, P. K.

Moscow-Leningrad, 1948

RYBAKOV, L.N.; KRAVCHENKO, A.P.

Economic and biological evaluation of future grape varieties for
cultivation in the White Russian S.S.R. Sbor.nauch.trud.Inst.
biol.AN BSSR no.1:55-66 '50. (MLRA 9:1)
(White Russia--Grapes)

RYBAKOV, L.S.: KHUDYAKOV, N.A.; KRIVONOSOV, V.S.; NAGOVITSYN, D.F.

Making killed steel with oxygen blow in the open-hearth furnace bath. Stal' 20 no. 12:1078-1080 D '60. (MIRA 13:12)

1. Ural'skiy politekhnicheskiy institut, Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov i Nizhne-Tagil'skiy metallurgicheskiy kombinat.

(Open-hearth process)
(Oxygen--Industrial applications)

RyBAKOV, L.S.

PLANE 1 BOOK EXPLORATION SOT/4601

Koordinatsiya avtomatizatsiya po prikladnykh kharakteristikam na metallurgicheskikh zavodakh Urals. Sverdlovsk, 1956

Primeneniye kisloroda na metallurgicheskikh predpriyatiyakh Urals: materialy koordinaatsionnoy avtomatizatsii (Use of Oxygen in Metallurgical Plants of the Urals: Materials of the Coordination Conference). Sverdlovsk, 1960. 132 p. Article slip inserted. 1,000 copies printed.

Sponsoring Agencies: Akademiya nauk SSSR. Urals' sci. filial. Institut metallurgii Urals' filial. Prikladnyye nauchno-tekhnicheskiye issledovaniya chernoy i tsvetnoy metallurgii.

Rep. Ed.: P.J. Kuznetsov, Candidate of Technical Sciences; Tech. Ed.: N.F. Seredkina.

PREFACE. This collection of papers is intended for scientific research and technical personnel in the field of metallurgy.

CONTENTS. The use of oxygen in ferrous and nonferrous metallurgy of the Urals is discussed. Results of experimental use of oxygen in some metallurgical plants are presented. During the Conference, held December 20 and 21, 1956, the following persons (in addition to the authors) took part in

the discussions: I.A. Miller, V.F. Melnikov, P.I. Sorokin, A.A. Pershakov (all affiliated with the Institute of Metallurgy of the Urals Branch of USSR S.S. Kabanov (Gubinsko-Solidskiy metallurgicheskii zavod - Nizhnyaya-Sala Metallurgical Plant), M.F. Koshin (Deceased) (Urals'kiy Institut khimicheskoy metallurgii - Urals Institute of Ferrous Metals), M.Ye. Kislitsin (Chelyabinsk metallurgicheskii zavod - Chelyabinsk Metallurgical Plant), G.Ye. Demin (Deceased) (Urals'kiy Institut khimicheskoy metallurgii - Urals Institute of Ferrous Metals), V.A. Agletskiy (Institut khimicheskoy metallurgii - Urals Institute of Ferrous Metals). Some of the papers are followed by references, both Soviet and non-Soviet.

Redaktsiya, P.I. (Urals'kiy Metallurgical Combine). Experimental Use of Oxygen in Open-Hearth Furnaces

Dudnikov, A.A. [Urals Scientific Research Institute of Ferrous Metals]. Use of Oxygen in Open-Hearth Furnaces

Rubtsov, V.F. and I.E. Kozlov [Institute of Metallurgy of the Urals Branch of USSR S.S. Kabanov (Gubinsko-Solidskiy metallurgicheskii zavod - Nizhnyaya-Sala Metallurgical Plant)]. Experimental Use of Oxygen in the "Preheated Car Plant"

Byalov, I.S. [Urals'kiy polimetallicheskii Institut Iamul S.M. Kirov]. Some Characteristics of the Polyethylene Insulation in Steel Making with the Use of Oxygen

Featuring of Slag-Forming Techniques in Steel Making with the Use of Oxygen

Featuring of Slag-Forming Techniques in Steel Making with the Use of Oxygen

Featuring of Slag-Forming Techniques in Steel Making with the Use of Oxygen

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Featuring of Slag-Forming Techniques in Steel Making with the Use of Oxygen

Featuring of Slag-Forming Techniques in Steel Making with the Use of Oxygen

RYBAKOV, L.S.

Speed of carbon oxidation with oxygen blowing of open-hearth
furnace baths during the finishing period. Izv. vys. ucheb. zav.;
chern. met. 6 no.4:39-44 '63. (MIRA 16:5)

1. Ural'skiy politekhnicheskiy institut.
(Open-hearth process--Testing) (Oxygen--Industrial applications)

RYBAKOV, L.S.

Carbon oxidation in the melting period of an open-hearth furnace
charge during oxygen introduction into the fuel spray. Trudy Ural.
politekh. inst. no. 116:27-42 '61. (MIRA 16:6)
(Open-hearth process)
(Oxygen--Industrial applications)

RYBAKOV, L.S.

Rate of carbon oxidation during the blowing of an open-hearth furnace
bath by oxygen in the finishing period. Trudy Ural. politekh. inst.
no.116:43-55 '61. (MIRA 16:6)
(Open-hearth process) (Oxygen--Industrial applications)

S/133/60/000/012/002/015
A054/A027

AUTHORS: Rybakov, L.S., Khudyakov, N.A., Krivonosov, V.S., and
Nagovitsyn, D.F.

TITLE: Producing Killed Steel With Oxygen Blown Into the Bath of the
Open-Hearth Furnace

PERIODICAL: Stal', 1960, No. 12, pp 1078-1080

TEXT: In view of the successful experience with oxygen in intensifying the firing of open-hearth furnaces and in the production of rimming steel (blowing oxygen through the bath) the NTMK investigated the possibilities of applying oxygen in the production of killed steel (rail, tube and other carbon steels), both for intensifying the burning and for blowing through the bath, in 1958. The main purpose of the tests was to establish the effect of blowing oxygen into the bath on the technology of melting and the quality of steel. The tests were carried out in high-capacity open-hearth furnaces, with coke-oven coke as fuel and the scrap-ore process. In one of the furnaces (A) oxygen was introduced in the bath through the top, in the other (B) through an equipment arranged at the front. The charge for both furnaces consisted of 62-65% pig iron 35-38% steel scraps, about 5% lime, 8-10% iron ore and agglomerate, Card 1/4

S/133/60/000/012/002/015
AO54/A027

Producing Killed Steel With Oxygen Blown Into the Bath of the Open-Hearth Furnace

0.5% bauxite. In furnace A oxygen was blown into the bath a few minutes after the melting down of the charge, for 10-65 minutes, at 5-6 atm absolute pressures. For rail steel, the oxygen consumption was 1.71 cu m/t, for medium carbon tube steel 2.65 cu m/t and for low carbon tube steel 3.69 cu m/t. In furnace B oxygen was blown into the bath, 60-90 minutes after the pouring of iron, for 10-60 minutes, at 5-10 atm absolute pressures. The oxygen consumption was 2.75 cu m/t for killed steel and 3.98 cu m/t for rimming steel. The tests, generally, proved that blowing oxygen through the bath either during the melting period, or during the period of killing shortened the duration of melting (when blowing oxygen during the killing period, the melting time is shortened by about 20-25 minutes) raises the furnace output and reduces the fuel and oxygen consumption. The velocity of decarbonization increased, when blowing during melting, by 0.6-1.52% and when blowing after melting down of the charge by 0.42-1.17%. Due to the acceleration of slag forming the dephosphorization and the desulfurization of the metal are quicker and more thorough. The phosphor content of steel produced with oxygen blown in was about 0.002-0.008%

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Producing Killed Steel With Oxygen Blown Into the Bath of the Open-Hearth Furnace

less than of the conventional types. In most cases the hydrogen content of the metal decreased without the acidity of the metal increasing. Improvement was found in the composition of slag, as a result of oxygen blowing and the quality of steel was also better. The output of railsteel (first class quality) was about 2% higher than with the conventional process, the waste of low-carbon tube steel produced by the new method was lower (0.82, 0.88%) than of the same type of steel produced without oxygen blowing (1.3 and 1.43%). In this respect the best results were obtained when oxygen was blown into the bath during melting. It could also be established that when melting high-carbon steels, blowing oxygen into the bath after melting down is advisable for every kind of steel, irrespective of composition. In the tests G.A. Petrov, N.D. Korneyev, S.N. Golokhmatov, Ye.A. Trunov, B.S. Kanterman took part. There are 2 figures and 2 tables.

ASSOCIATION: Ural'skiy politekhnicheskiy institut, Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov, NMTK (The Ural Polytechnical Institute, The Ural Scientific Research Institute of Iron and Steel, NMTK).

Card 3/4

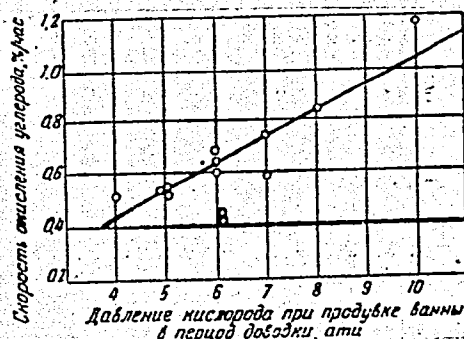
S/133/60/000/012/002/015
A054/A027

Producing Killed Steel With Oxygen Blown Into the Bath of the Open-Hearth Furnace

Legend to Fig. 1: The dependence of oxidizing velocity of carbon on the oxygen pressure at blowing oxygen into the bath in the period of heat finishing.

Vertical legend: Velocity of carbon-oxidation, %/hour

Horizontal legend: Oxygen pressure during the blowing of oxygen into the bath in the period of heat finishing



Card 4/4

LITVISHKO, V.N.; RYBAKOV, L.S., redaktor; LUCHKO, Yu.V., redaktor;
KOVALENKO, N.T., tekhnicheskii redaktor.

[Work practice of the high-speed steel workers of the Nishayaya
Saida Metallurgical plant] Opyt stalevarov-skorostnikov N. -Sal-
dinskogo metallurgicheskogo zavoda. Sverdlovsk, Gos. nauchno-tekhn.
izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1954. 49 p.
(Open-hearth process) (MLRA 7:8)

RYBAKOV L. S.

✓ The velocity of the burning-out of carbon in the open-hearth furnace. L. S. Rybakov, *Trudy U.S. Polutekh. Inst. im. S. M. Kirova* 52, 62-72 (1955). In decarburization of steel in the open hearth, there is a crit. concn. of C below which the rate of C removal is proportional to the C content and above which it is independent of the % C. The crit. concn., which varies typically in the range 0.25-0.40% C, depends on the ratio of the exposed surface to the mass of the charge. The crit. C level rises with fall in the surface-to-charge ratio. It is recommended that open-hearth furnace design take into account the effect of that ratio on throughput, resulting from its effect on rate of C removal. C. H. Fuchsman

RYBAKOV, L.S., kand.tekhn.nauk, dots.

Conditions of slag drawing in the scrap and hot metal process.
Trudy Ural.politekh.inst. no.75:59-81 '59.

(MIRA 13:4)

(Open-hearth process)

RYBAKOV, L.S., kand.tekhn.nauk, dots.

Use of polyhedral molds for casting pipe steel ingots. Trudy
Ural.politekh.inst. no.75:104-122 '59. (MIRA 13:4)
(Ingot molds)

RYBANKOY F.S.

12
The influence of the technology of steel smelting and
casting on the development of spotty liquation.
P. I. Rybanyuk and V. I. D'yachkov. Trudy Ural. Politekh.
Inst. 52, 91-101 (1955). Spotty liquation
observed in cast steel, is assoc. with the presence of S.
(0.0121 to 0.285% in the reported expts.). By increasing
the Mn content of the steel and reducing the pouring temp.,
the flaw can be eliminated. C. H. Fuchsman.

2

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RYBAKOV, L. S.

PHASE I BOOK EXPLOITATION

SOV/5556

85

Moscow. Institut stali.

Novoye v teorii i praktike proizvodstva martenovskoy stali (New [Developments] in the Theory and Practice of Open-Hearth Steelmaking) Moscow, Metallurgizdat, 1961. 439 p. (Series: Trudy Mezhvuzovskogo nauchnogo soveshchaniya) 2,150 copies printed.

Sponsoring Agency: Ministerstvo vysshogo i srednego spetsial'nogo obrazovaniya RSFSR. Moskovskiy institut stali imeni I. V. Stalina.

Eds.: M. A. Glinkov, Professor, Doctor of Technical Sciences, V. V. Kondakov, Professor, Doctor of Technical Sciences, V. A. Kudrin, Docent, Candidate of Technical Sciences, G. N. Oyka, Professor, Doctor of Technical Sciences, and V. I. Yavovskiy, Professor, Doctor of Technical Sciences; Ed.: Ye. A. Borko; Ed. of Publishing House: N. D. Gromov; Tech. Ed.: A. I. Karasev.

PURPOSE: This collection of articles is intended for members of scientific institutions, faculty members of schools of higher education, engineers concerned with metallurgical processes and physical chemistry, and students specializing in these fields.

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New [Developments] in the Theory (Cont.)

85
SOV/5556

COVERAGE: The collection contains papers reviewing the development of open-hearth steelmaking theory and practice. The papers, written by staff members of schools of higher education, scientific research institutes, and main laboratories of metallurgical plants, were presented and discussed at the Scientific Conference of Schools of Higher Education. The following topics are considered: the kinetics and mechanism of carbon oxidation; the process of slag formation in open-hearth furnaces using in the charge either ore-lime briquets or composite flux (the product of calcining the mixture of lime with bauxite); the behavior of hydrogen in the open-hearth bath; metal desulfurization processes; the control of the open-hearth thermal molting regime and its automation; heat-engineering problems in large-capacity furnaces; aerodynamic properties of fuel gases and their flow in the furnace combustion chamber; and the improvement of high-alloy steel quality through the utilization of vacuum and natural gases. The following persons took part in the discussion of the papers at the Conference: S.I. Filippov, V.A. Kudrin, M.A. Glinkov, R.P. Nam, V.I. Yavovskiy, G.N. Oyks and Ye. V. Chelishchev (Moscow Steel Institute); Ye. A. Kazachkov and A. S. Kharitonov (Zhdanov Metallurgical Institute); N.S. Mikhaylets (Institute of Chemical Metallurgy of the Siberian Branch of the Academy of Sciences USSR); A.I. Stroganov and D. Ya. Povolotskiy (Chelyabinsk Polytechnic Institute); P.V. Umrikhin (Ural Polytechnic Institute); I.I. Fomin (the Moscow "Serp i molot" Metallurgical Plant); V.A. Foklev (Central Asian Polytechnic Institute).

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New [Developments] in the Theory (Cont.)

and M.I. Beylinov (Night School of the Dneprodzerzhinsk Metallurgical Institute).
References follow some of the articles. There are 268 references, mostly Soviet.

TABLE OF CONTENTS:

Foreword

5

Yavovskiy, V. I. [Moskovskiy institut stali - Moscow Steel Institute].
Principal Trends in the Development of Scientific Research in Steel
Manufacturing

7

Filippov, S. I. [Professor, Doctor of Technical Sciences, Moscow Steel
Institute]. Regularity Patterns of the Kinetics of Carbon Oxidation
in Metals With Low Carbon Content
[V. I. Antonenko participated in the experiments]

15

Levin, S. L. [Professor, Doctor of Technical Sciences, Dnepropetrovskiy
metallurgicheskiy institut - Dnepropetrovsk Metallurgical Institute].

Card 3/14

New [Developments] in the Theory (Cont.)

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4

Rybakov, L. S. [Docent, Candidate of Technical Sciences, Ural Polytechnic Institute]. Carbon Oxidation During the Melting Period in the Basic Open-Hearth Scrap and Scrap-Ore Processes

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Discussion of Papers

79

Rybakov, L. S. Investigating the Slag Formation in the Basic Open-Hearth Scrap and Scrap-Ore Processes

89

Rybakov, L.S. Slag Formation in the Basic Open-Hearth Furnace During the Introduction of Oxygen Into the Flame

102

Umrikhin, P.V., V.A. Startsev, and A.L. Kleyn [Engineer, Ural Polytechnic Institute]. Slag Formation During the Melting Period in Processing the Chrome-Containing Charge

111

[P. Ye. Nizhel'skiy, Candidate of Technical Sciences, and V.P. Krysov, Engineer, participated in the research work]

Card 5/14

AKHMED ZADE, A.A.; RYBAKOV, L.Ya.

Problems in increasing the efficiency of cracking stills. Energ.
biul. no.12:25-29 D '56. (MLRA 10:1)
(Cracking process)

Rybakov, M

U-11

USSE / Farm Animals. Honey Producing Bees.

Abs Jour : Ref Zhur - Biologiya, No 16, 72248

Author : Rybakov, M.

Title : Bee-Breeding in Tyan-Shan

Orig Pub : S. Kh. Kirgizii, 1955, No 6, 41-43

Abstract : The bee-breeding division of the Kirgiz fruit and vegetable control station studied the breeding of bees in the Narynski and Dzhumagalski regions where in the valleys and the foothills the plants grow in the beginning of the summer, in the middle part of mountains where they grow in the summer, and on the peaks where they grow in the autumn. The collection of honey in the severe climatic conditions was about 56.3 kg. In Issyk-Kulsk, there was a mountain breed of bees well adapted to its surroundings.

Card

: 1/1

- 86 -

ALEKSANDROV, N.I.; GEFEN, N.Ye.; GAPOCHKO, K.G.; GARIN, N.S.; GORDON, G.Ya.
KOZHUSHKO, M.I.; KORENEV, G.P.; LAZAREVA, Ye.S.; LEYKEKHMAN, Ye.P.;
MASLOV, A.I.; PAVLOV, G.A.; POLIVANOV, N.D.; ROMANOV, P.S.; RYBAKOV,
P.S.; RYBAKOV, M.G.; SAMOKHVALOV, M.F.; SMIRNOV, M.S.; SHTERN, M.A.;
CHEPKOV, V.N.

Experience with mass aerosol immunization with tularemia dust
vaccine. Zhur. mikrobiol., epid. i imm. 41 no. 2:16-43 F '64.
(MIRA 17:9)

SOV/137-57-11-21774

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 11, p 159 (USSR)

AUTHOR: Rybakov, M. I.

TITLE: Methods of Increasing the Strength of Reconditioned Machine Parts
During Repairs of Machinery (Povysheniye prochnosti vos-
stanavlivayemykh detaley pri remonte mashin)

PERIODICAL: Tr. Kazakhsk. gos. s.-kh. in-ta 1956, Vol 5, Nr 2, pp 62-71

ABSTRACT: Bibliographic entry

Card 1/1

Rybakov, M.I.

S/137/60/000/005/004/009
A006/A002

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No. 5, p. 221,
10729

AUTHOR: Rybakov, M.I.

TITLE: Investigation Into the Effect of Quench-Hardening on the Hardness
and Wear Resistance of Hardfaced Metal Layers

PERIODICAL: Tr. Kazakhsk. s.-kh. in-ta, 1959, Vol. 8, No. 1, pp. 71-82

TEXT: To raise the efficiency of cylindrical machine parts, manufactured of medium-carbon and low-alloy steels, quench hardening is recommended during their reconditioning by hardfacing. Hardfacing should be performed with electrodes producing build-up metal of medium hardness ["O3H-300" (OZN-300), "O3H-350" (OZN-350), "У-340 п/б" (U-340 p/b), "УОНИ-13/55" (UONI-13/55), "УОНИ-13/55А" (UONI-13/55A)]. The parts are easily machined with cutting tools, and subsequent quench-hardening ensures the required hardness of their surface (on account of an increased content of Mn and other alloying components). When using T-540

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S/137/60/000/005/004/009
A006/A002

Investigation Into the Effect of Quench-Hardening on the Hardness and Wear
Resistance of Hardfaced Metal Layers

electrodes, quench-hardening with volumetric heating is indispensable after
annealing and mechanical working, since inadmissible cracks and scaling occur
after surface quench-hardening with high-frequency current.

G. K. 

Card 2/2

~~RYBAKOV~~, Mikhail Isaifovich, inzhener; KARPOV, V.V., kandidat tekhnicheskikh nauk, nauchnyy redaktor; ROTENBERG, A.S., redaktor izdatel'stva; PUL'KINA, Ye.A., tekhnicheskiiy redaktor.

[Manufacturing staircases and landings by rapid assembly-line methods] Proizvodstvo lestnichnykh marshei i ploshchadek potokhnoskorostnym metodom. Leningrad, Gos.izd-vo lit-ry po stroit. i arkhit., 1956. 30 p. (MLRA 10:7)

1. Leningradskiy stroitel'nyy trest No.20 (for Rybakov)
(Staircases)

RYBAKOV, M. I., Cand. Tech. Sci. (diss) "Investigation of Deposited and Tempered Layers of Metal in Conditioning of Motor and Tractor Parts," Alma-Ata, 1961, 18 pp. (Combined Council attached to Kazakh. State Agri. Inst.) 200 copies (KL Supp 12-61, 273).

SOV/137-59-2-4383

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 2, p 293 (USSR)

AUTHOR: Rybakov, M. I.

TITLE: The Character of Structural Changes in the Zone of Welded-on and Parent Metals After Surface-hardening With High-frequency Current
(Kharakter strukturnykh izmeneniy v zone naplavlennogo i osnovnogo metallov posle poverkhnostnoy zakalki TVCh)

PERIODICAL: Sb. dokl. na Nauchn. konferentsii fak, mekhaniz. s.-kh. Kazakhsk. s.-kh. in-t. Alma-Ata, 1958, pp 59-64

ABSTRACT: The majority of parts of tractors and farm machinery brought in for repairs are repaired by hard-facing (HF) with electric-arc welding. In this process the metal of the machine part in the high-temperature zone loses its original structure which had been produced by hardening during manufacture. High-frequency current surface-hardening is recommended after HF to improve the metal structure. In connection with the above the author studied the structural changes which take place during the processes mentioned. St-45 steel which was surface-hardened with high-frequency current to a depth of 2 mm prior to HF was used as the parent metal. OZN-300, OZN-350, U-340

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SOV/137-59-2-4383

The Character of Structural Changes in the Zone of Welded-on and Parent (cont.)

"p/b" and T-540 electrodes were used. Analysis of the microstructure established the following four zones of thermal effect of HF in the cross section from the surface towards the center: Welded-on hard-facing metal zone with a cast dendritic structure; transition zone with a coarse grain structure; the zone of the thermal effect, and the parent-metal zone, the latter two having a fine-grain structure. After surface-hardening with heating by high-frequency current to a depth greater than the thickness of the welded-on layer, the structure of the latter becomes appreciably more refined (martensite or martensite-ferrite) and of a more uniform chemical composition. The boundary between the welded-on hard-facing and the parent metal attains homogeneity. The author draws the conclusion that it is necessary to surface-harden with high-frequency current any machine parts that have been repaired by HF with OZN-300, OZN-350, or U-350 "p/b" electrodes. Machine parts that have been repaired by HF with T-540 electrodes, which produce welded-on facing metal of great hardness and having tendency to peel off during quench-hardening are not recommended for surface-hardening treatment.

V. R.

Card 2/2

RYBAKOV, M.I.

GERS-L No. 45

Rybakov, M.I. (M.V. Lomonosov Moscow State University), Heterosis in vegetative hybrids
of oats and wheat, 541-3

Akademiya Nauk S.S.S.R. Doklady Vol. 79 No. 3

RYBAKOV, M., kand. istoricheskikh nauk

"V.I.Lenin and the problem of military organization at the Eighth Congress of the Russian Communist Party (Bolshevik)." Komm. Vooruzh. Sil 5 no.22:83-85 N '64. (MIRA 17:12)

RyBAKOV, M.M.,

USSR/General Problems of Pathology - Tumors.

T-5

Abs Jour : Ref Zhur - Biol., No 1, 1958, 32

Author : Rybakov, M.M.

Inst : ~~USSR Academy of Sciences~~

Title : Remote Results of Treatment of the Gastric Carcinoma.

Orig Pub : V sb.: Vopr. khirurgii organov bryushn. i grudn. polostey,
L., 1957, 84-89.

Abstract : No abstract.

Card 1/1

RYBAKOV, M.M.

Metastasis of stomach cancer into the gastropancreatic ligament.
Nov. khir. arkh. no.3:85 My-Je '60. (MIRA 15:2)

1. Kafedra gosspital'noy khirurgii (zav. - prof. A.V.Belichenko)
Kurskogo meditsinskogo instituta.
(STOMACH...CANCER)

RYBAKOV, M.M., kand.med.nauk (Kursk)

Endarteritis obliterans. Fel'd. i akush. 27 no.4:3-6 Ap '62.

(MIRA 15:6)

(ARTERIES--DISEASES)

L 43922-65 WW
ACCESSION NR: AR4046561

S/0271/64/000/003/A009/A009

SOURCE: Ref. zh. Avtomat., telemekh. i vychisl. tekhn. Svodnyy tom, Abs. 8A68

AUTHOR: Rybakov, M. M.

TITLE: Analysis of stability and synthesis of correcting units of the electric compensated differential manometer.

CITED SOURCE: Tr. N.-i. in-ta teploenerg. priborostr., sb. 1, 1963, 3-19

TOPIC TAGS: manometer, differential manometer, electric manometer

TRANSLATION: The stability of DMEK-F and DMEK-M differential manometers-flowmeters developed by NIITeplopribor is analyzed. The analysis is based on log-magnitude-frequency and phase-frequency characteristics and on a logarithmic criterion of stability. Transfer functions of all units and open loops are given. The stability is attained by introducing corrective units. Corrective loops are synthesized. The corrective loop comprises three integro-differential d-c circuits connected in series. As the instruments are of multirange type, it is sufficient to determine the corrective-circuit parameters only for the highest range. The transfer function of

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ACCESSION NR: AR4046561

of the integro-differential circuit is determined by means of the operational calculus. The parameters of the corrective circuits are determined from this function. Experimental data is cited to corroborate the necessity for the corrective units. Eight illustrations. Bibliography: 8 titles.

SUB CODE: IE, EE

ENCL: 00

Card 2/2

ACC NR: AP7001421

(A)

SOURCE CODE: UR/0413/66/000/021/0135/0135

INVENTORS: Delimbetov, V. A.; Zimokha, V. A.; Rybakov, M. M.

ORG: none

TITLE: Converter of elastic sensor stress into analog electric output signal for differential manometers and flowmeters. Class 42, No. 188080 [announced by Scientific Research Institute of Thermal Power Instrument Manufacture (Nauchno-issledovatel'skiy institut teploenergeticheskogo priborostroyeniya)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 21, 1966, 135

TOPIC TAGS: elastic stress, electromechanic converter, manometer, flowmeter

ABSTRACT: This Author Certificate presents a converter of elastic sensor stress into an analog electric output signal for differential manometers and flowmeters. The converter contains an error indicator, an amplifier device, an electromagnetic power feedback unit, and a lever system. To simplify the design and adjustment and to increase the reliability, the error indicator and the power feedback unit are in the form of a single unit with a common magnetic circuit (see Fig. 1).

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UDC: 681.121.845

ACC NR: AP7001421

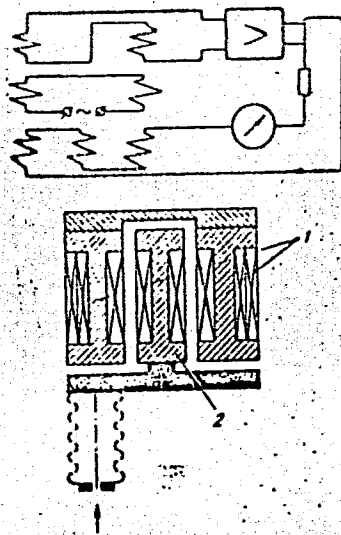


Fig. 1. 1 - error indicator; 2 - power feedback unit

Orig. art. has: 1 diagram.

SUB CODE: 09/ SUBM DATE: 20Dec65

Card 2/2

RYBAKOV, M. M.

Rybakov, M. M. "On the deflation of soils (On the problem of air erosion of soil," (Paper read at the Conference on methods for the study of soil erosion), Trudy Plodoovoshch. in-ta im. Michurina, Vol. IV, 1948, p. 87-97.

So: U-3736, 21 May 53, (Letopis 'Zhurnal 'nykh Statey, No. 17, 1949).

RYBAKOV, M. M.

Rybakov, M. M. "The soils of the vineyards of Voronezh Oblast," Trudy Plodoovoshch. in-ta im. Michurina, Vol. IV, 1948, p. 3-60. - Bibliog: 33 items.

So: U-3736, 21 May 53, (Letopis 'Zhurnal 'nykh Statey, No. 17, 1949).

RYBAKOV, M. M.

Rybakov, M. M. "A device for determining the permeability of soils," Trudy Plodoovoshch. in-ta im. Michurina, Vol. IV, 1948, p. 67-74.

So: U-3736, 21 May 53, (Letopis 'Zhurnal 'nykh Statey, No. 17, 1949).

RYBAKOV, M. M.

Rybakov, M. M. "A device for determining the volumetric weight of soils by the monolithic method," Trudy Plodoovoshch. in-ta im. Michurina, Vol. IV, 1948, p. 75-86, - Bibliog: 9 items.

So: U-3736, 21 May 53, (Letopis 'Zhurnal 'nykh Statey, No. 17, 1949).

RYBAKOV, M. M.

Rybakov, M. M. "On the problem of deep plowing in salty soils (solods)," Trudy Plodoovoshch. in-ta im. Michurina, Vol. IV, 1948, p. 61-66.

So: U-3736, 21 May 53, (Letopis 'Zhurnal 'nykh, Statey), No. 17, 1949).

Рыбаков, М.Н.

* Pollen—an indispensable food for bees. M. N. Ryba-
kov. *Pchelovodstvo* 3, 17-19(1953); *Bee World* 33, 286-288
(1954). The indispensability of pollen as a food is dis-
cussed as are various expts. The results of the chem.
analysis of pollen from 11 varieties of plants are given.
R. B. Wells

USSR/Farm Animals. Honeybee.

Q

Abs Jour: Ref Zhur-Biol., No 17, 1958, 78853.

Author : Rybakov, M. M.; Yegunov, N. I.

Inst : Kirgiz Scientific-Research Institute of Agriculture.

Title : On Apiculture in Tian-Shan Region.

Orig Pub: Byul. Kirg. n.-i. in-ta zemled., 1957, I, 58-70.

Abstract: No abstract.

Card : 1/1

1. RYBAKOV, M. N.
2. USSR (600)
4. Pollen
7. Flower pollen is a necessary feed for bees, Pchelovodstvo, 30, no. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

Rybakov, M. P.

AID P - 1152

Subject : USSR/Electricity
Card 1/1 Pub. 29 - 5/31
Author : Rybakov, M. P., Eng.
Title : Repair of the casing of the steam jet cooling apparatus
Periodical : Energetik, 11, 13-15, N 1954
Abstract : The author briefly describes the repair work of such an apparatus as used in high-pressure boilers. Four photographs and drawings.
Institution : None
Submitted : No date

1. RYBAKOV, M. P., Engr.
2. USSR (600)
4. Steam Boilers
7. Protecting water economizer tubes against deterioration from ashes.
Rab. energ. 2 No. 11, 1952
9. Monthly Lists of Russian Accessions, Library of Congress, March 1953, Unclassified.

RYBAKOV, M.P., inzhener.

Repair of the body of a spraying steam cooler. Energetik 2 no.11:
13-15 N '54. (MLRA 8:1)
(Steam boilers)

AUTHOR:

Rybakov, M.P., Engineer

SOV-91-58-4-8/29

TITLE:

An Increase in the Reliability of the Operation of High Boilers (Povysheniye nadezhnosti raboty kotlov vysokogo davleniya)

PERIODICAL:

Energetik, 1958, Nr 4, pp 8-10 (USSR)

ABSTRACT:

This article deals with the breakage of pipes of the water economizers of 6 high pressure boilers having the following characteristics: single-drum, natural circulation, output of 160 tons per hour, 64 atm pressure and 500°C temperature of steam. These boilers were put into service at a "Mos-energo" GRES in 1950-1952. The author gives the reasons for breakage and recommendations for their elimination. The structure of these boilers is described and illustrated by a diagram. At the beginning of the service, breakage occurred frequently and caused a bulging of the rupture zone, which mainly located at the top of the vertical and at the beginning of the horizontal pipes. The nature of breakage revealed that it was caused by overheating. The "VTI" stated that the principal reason of overheating of the economizer's outlet stand pipes was the formation of the critical level in them or the separation of mixture which was caused by

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trouble in the operating conditions of the boilers and by the low rated speed of feed water along the stand pipes. During the firing of the boilers, the speed of water circulation through the economizer was considerably lowered and attained zero at certain moments. The irregularity feed factor reached 0.6. The walls of the stand pipes were overheated in the zone of 900 to 1,000 °C. The thermal conductivity of these pipes was so high that the whole water quantity arriving from the drum was probably evaporated before reaching the critical level. The Sluzhba naladki Mosenergo ("Mosenergo" Adjusting Service) measured the temperature in the vertical sectors of outlet pipes of the boiler Nr 5 and the highest temperature increase was found to be in the pipe at the end of the firing (580 °C). The most efficient method of preventing the breakage would be the complete rebuilding of the economizer's outlet pipes, thus removing them from the zone of high overheating, but this rebuilding is very complicated. Therefore, according to the recommendations of the "VTI", firing conditions were improved and a cooling of economizer's pipes was effected by the continuous pumping of feed water with an output of

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20 to 25 tons per hour. The irregularity feed factor was reduced to 10-12%. Since this did not completely eliminate breakage due to overheating, the circulation speed of feed water in the outlet pipes was increased. For this purpose, the number of stand pipes was reduced by 50%. Thereafter, no breakage occurred for more than two years. At another "Mosenergo" electric power plant, where 3 boilers with analogous feed system are installed, breakage was also stated, but it was eliminated by removing the outlet pipes from the zone of overheating. The author comes to the conclusion that it is not advisable to have a low speed water feeding in the zone of high temperature. There is 1 diagram.

1. Boilers--Performance
2. Economizer tubes--Failure

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E194/E455

AUTHOR: Rybakov, M.P., Engineer

TITLE: Welding Austenitic Steel Steam Pipes on Copper
Removable Rings

PERIODICAL: Energomashinostroyeniye, 1960, No.1, pp.35-37

TEXT: In welding steam pipes, use is at present made of support rings which are not removed afterwards. Until 1957, conical rings were permitted but now they may be only cylindrical. These rings facilitate assembly of the pipes for welding but make the pipe less reliable in service. To reduce resistance to flow they are usually let into grooves, which concentrate the stress and weaken the pipes. When welding on such rings, large gaps have to be left at the butt joints between pipes. Hence, the mass of weld metal is large, and remanent stresses are left after welding. Occasionally, the rings break in service and damage fittings on the pipelines. It was found more difficult to weld austenitic steel pipes on such rings than pearlitic. Accordingly, the Central Scientific Research Institute of Engineering Technology has proposed the use of removable copper support rings for making welds. They also proposed to make the

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weld root in an atmosphere of argon, but this procedure was found difficult in practice on austenitic pipes. The removable copper ring consists of three or four separate sectors with a steel frame support; the assembly is depicted in Fig.2 and described. The outer diameter of the ring is made 1 to 2 mm less than the nominal internal diameter of the pipe. The ring, cut into three or four equal sectors, is assembled in one of the butt ends of the pipes before welding. The ring is wedged in with a metal cone. The gap between the butt edges of the pipes should not exceed 4 mm and is adjusted by inserting a wire 4 mm diameter. Welds on austenitic pipes with these support tubes have been made since 1957; more than 300 welds have been made on steam pipes of 219 x 27 mm diameter of austenitic steel grades ЭА-257 (EI-257) and 1X18H12T (1Kh18N12T). The method reduces electrode consumption by 20% and increases productivity by 15%. The main advantage is, however, the absence of cracks in the root of the weld and reduction in shrinkage and remanant welding stresses because of the reduced volume of molten metal. The method is

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now widely used in power stations but is not yet applied
sufficiently by power equipment manufacturers. There are
3 figures.



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RYBAKOV, M.P., inzh.

~~Increasing the reliability of high-pressure boilers. Energetik~~
6 no.4:8-10 Ap '58. (MIRA 11:4)
(Boilers)

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H-D '54. (MLA 7:11)
(Mensuration) (Geometrical drawing)

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